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PATTERSON & SHERIDAN, L.L.P.
3040 POST OAK BOULEVARD, SUITE 1500
HOUSTON, TX 77056

EXAMINER	
EL SHAMMAA, MARY A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARK R. FERNALD, TREVOR W. MacDOUGALL,
MARTIN A. PUTNAM, REBECCA S. BRYANT,
CHRISTOPHER J. WRIGHT, MICHAEL ARCAND,
and CHRISTOPHER T. CHIPMAN

Appeal 2009-013386
Application 10/755,708
Technology Center 2800

Before MAHSHID D. SAADAT, ALLEN R. MacDONALD, and
CARLA M. KRIVAK, *Administrative Patent Judges*.

MacDONALD, *Administrative Patent Judge*.

DECISION ON APPEAL[1]

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[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE" (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

STATEMENT OF THE CASE

Introduction

Appellants appeal under 35 U.S.C. § 134 from a final rejection of claims 1-12, 21 and 23-30. Claims 13-20 and 22 have been canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm. We also enter new grounds of rejection under 37 C.F.R. § 41.50(b).

Exemplary Claim

Exemplary independent claim 1 reads as follows:

1. A method for splicing two optical waveguide sections, each having a core surrounded by a cladding, wherein at least one of the optical waveguide sections has an outer diameter greater than 400 micrometers (μm), comprising:

aligning respective cores at distal ends of the two optical waveguide sections; and

fusing the distal ends of the optical waveguide sections by exposure to at least two separate laser beams.

Rejections[2]

1. The Examiner rejected claim 10 as being unpatentable under 35 U.S.C. § 103(a) over the combination of Walters (US 6,033,515) and Maas (US 5,157,751).[3]

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[2] Although the Examiner rejected claims 13-20, the rejections of these claims are not before us since claims 13-20 have been canceled by the Examiner, as per the communication to Appellants mailed July 22, 2009. Accordingly, claims 13-20 are not before us on appeal.

[3] The Examiner did not include claim 1 in the statement of the rejection over Walters and Maas, either in the Final Rejection (Final Rej. 3-4), or in the Answer (Ans. 4). We do not accept the Examiner's invitation (Ans. 4) to

2. The Examiner rejected claims 1-3, 6, 7, 9, 12, and 23-25 as being unpatentable under 35 U.S.C. § 103(a) over the combination of Chapman (US 2003/0223712 A1), Maas, and Walters.[4]

3. The Examiner rejected claims 1, 4, 5, 21, 27, and 28 as being unpatentable under 35 U.S.C. § 103(a) over the combination of Chapman, Maas, Walters, and further in view of Eskildsen (US 2003/0108307 A1).

4. The Examiner rejected claims 1, 8, 10, 11, 21, 26, 29, and 30 as being unpatentable under 35 U.S.C. § 103(a) over the combination of Chapman, Maas, Walters, and further in view of Huang (US 2005/0117856 A1)).

Appellants' Contentions

With respect to the first rejection over Walters and Maas, *supra*, Appellants contend that the Examiner erred in rejecting claim 10 under 35 U.S.C. § 103(a) for numerous reasons including: (1) Walters and Maas fail to teach or suggest splicing two optical waveguides, at least one of the waveguides having an outer diameter greater than 400 micrometers, by fusing distal ends with two laser beams, as recited in claim 1; (2) Walters and Maas fail to teach aligning the cores of two large diameter waveguides,

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consider claim 1 "inherently" included in the mention of claim 10 in the statement of the rejection. Rather, the panel adds in this decision our own new rejection of claim 1. For purposes of this appeal, we consider this rejection to only include claim 10.

[4] The Examiner did not include claim 21 in the statement of the rejection over Chapman, Maas, and Walters, either in the Final Rejection (Final Rej. 5), or in the Answer (Ans. 6). We do not accept the Examiner's invitation (Ans. 6) to consider claim 21 "inherently" included in the mention of claim 23 in the statement of the rejection. Rather, the panel adds in this decision our own new rejection of claim 21. For purposes of this appeal, we consider this rejection to only include claims 1-3, 6, 7, 9, 12, and 23-25.

as recited in claim 1; and (3) Maas fails to teach or suggest splicing two optical waveguides by fusing distal ends with two laser beams, as recited in claim 1 (App. Br. 10-13).

With respect to the second rejection over Chapman, Maas, and Walters, *supra*, Appellants contend that the Examiner erred in rejecting claims 1-3, 6, 7, 9, 12, and 23-25 under 35 U.S.C. § 103(a) for numerous reasons including that Chapman, Maas, and Walters fail to suggest splicing two optical waveguides, each having a core and cladding, and at least one of the waveguides having a large diameter (App. Br. 14-16).

With respect to the third rejection over Chapman, Maas, Walters, and Eskildsen, *supra*, Appellants contend that Eskildsen fails to cure the deficiencies of Chapman, Maas, and Walters (App. Br. 17-18).

With respect to the fourth rejection over Chapman, Maas, Walters, and Huang, *supra*, Appellants contend that Huang fails to cure the deficiencies of Chapman and Maas (App. Br. 19). Appellants also contend for the first time in the Reply Brief that Huang fails to qualify as prior art (Reply Br. 4).

Issue on Appeal

Did the Examiner err in rejecting claims 1-12, 21, and 23-30 as being obvious because the various combinations of the applied references fail to teach or suggest the optical waveguide fusing, splicing, and aligning limitations recited in these claims?

ANALYSIS

We have reviewed the Examiner's rejections in light of Appellants' contentions in the Appeal Brief and Reply Brief that the Examiner has erred.

We disagree with Appellants' conclusions. With respect to claims 1-12, 21, and 23-25, we adopt as our own (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken and (2) the reasons set forth by the Examiner in the Examiner's Answer in response to Appellants' Appeal Brief. We concur with the conclusions reached by the Examiner.

Independent claims 1 and 21 recite, respectively, a method and system for fusing two optical waveguide sections together, including aligning the cores of the waveguides and splicing the waveguides using two laser beams. Claim 1 recites "wherein at least one of the optical waveguide sections has an outer diameter greater than 400 micrometers," and claim 21 recites "wherein at least one of the stages is capable of holding an optical waveguide having a cross-sectional dimension greater than 400 [μ]m."

We agree with the Examiner's interpretation that claims 1 and 21 encompass a method and system for splicing and fusing two waveguides, where only *one* of the waveguides has an outer diameter greater than 400 micrometers (i.e., has a *large* diameter). Accordingly, Appellants' argument (App. Br. 12) that neither Walters nor Maas teaches aligning the cores of *two* large diameter waveguides is not convincing.

We also agree with the Examiner (*see* Ans. 11-13) that Walters suggests fusion splicing two optical waveguide devices/components such as fibers, lenses, gratings, prisms, filters, etc (*see* col. 2, ll. 24-30), and that one of ordinary skill in the art would recognize that one or both of the two optical components being fused could be an optical fiber or waveguide. Walters specifically discloses the desirability of fusion splicing optical components where one component has a significantly and comparatively

larger cross-sectional area than the other component (Abs.; col. 1, ll. 7-12), the components being "a collimating lens, a filter, a grating, a prism, a wavelength division multiplexer (WDM) device, or *any other optical component* of comparatively larger cross-sectional area" (col. 2, ll. 25-28 (emphasis added)). Maas teaches aligning distal ends and cores of two fibers for fusion splicing (*see* claim 4 at col. 4, ll. 8-29 of Maas). In view of the foregoing, Appellants' argument (App. Br. 12) that the combination of Walters and Maas fails to teach or suggest splicing two optical waveguides, each waveguide having a core, cladding, and distal ends, is not convincing.

The Examiner first rejected claims 1, 8, 10, 11, 21, 26, 29, and 30 under 35 U.S.C. § 103(a) as being unpatentable over Chapman, Maas, Walters, and Huang in the Final Rejection mailed September 22, 2006 (Final Rej. 7-8). The Examiner's Answer (Ans. 9-11 and 17) does not present new grounds of rejection with respect to Huang. Appellants' contention (Reply Br. 4) that Huang fails to qualify as prior art was not presented in the Appeal Brief, is not in response to any new ground of rejection, and is therefore untimely. Arguments not made by Appellants in the Brief are considered waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

NEW GROUND OF REJECTION UNDER 37 C.F.R. § 41.50(b)

Under 37 C.F.R. § 41.50(b), we enter a new ground of rejection under 35 U.S.C. § 103(a) for claim 1. We also enter a new ground of rejection under 35 U.S.C. § 103(a) for claim 21.

Claim 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Walters and Maas.

As to the teachings and suggestions of Walters and Maas and the motivation to combine these references, we refer to the Examiner's discussion of Walters and Maas in the Answer (Ans. 4-5 and 11-13). We agree with the Examiner (Ans. 4) that Walters teaches fusion splicing using two laser beams and Maas teaches connection and alignment of two fibers having claddings and cores.

Claim 21 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Chapman, Maas, and Walters.

As to the teachings and suggestions of Chapman, Maas, and Walters and the motivation to combine these references, we refer to the Examiner's discussion of Chapman, Maas, and Walters in the Answer (Ans. 6-7 and 13-16). We agree with the Examiner (Ans. 7) that Chapman teaches fusing (i.e., fusion splicing) two distal ends of optical fibers using two laser beams.

ORDER

The decision of the Examiner rejecting claims 1-12, 21, and 23-30 is affirmed. We have also entered new grounds of rejection under 37 C.F.R. § 41.50(b) for claims 1 and 21.

This decision contains new grounds of rejection pursuant to 37 C.F.R. § 41.50(b). 37 C.F.R. § 41.50(b) provides that "[a] new ground of rejection . . . shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that the Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

> (1) *Reopen prosecution.* Submit an appropriate amendment of the claims

> so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .
>
> (2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

CONCLUSIONS

(1) The Examiner has not erred in rejecting claims 1-12, 21, and 23-30 as being unpatentable under 35 U.S.C. § 103(a).

(2) Claims 1-12, 21, and 23 -30 are not patentable.

DECISION

The Examiner's rejections of claims 1-12, 21, and 23-30 are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED; 37 C.F.R. § 41.50(b)

kis

PATTERSON & SHERIDAN, L.L.P.
3040 POST OAK BOULEVARD, SUITE 1500
HOUSTON, TX 77056